# Chapter 1 – Purpose and Need for the Revised Forest Plan

## 1.1 Introduction

This Final Environmental Impact Statement (FEIS) analyzes the consequences of five alternatives for revising the 1988 LTBMU Land and Resource Management Plan (as amended), commonly referred to as the Forest Plan. The FEIS's primary purpose is to consider a range of alternatives and document the environmental consequences associated with those alternatives. Plan revision provides an updated Forest Plan for the Lake Tahoe Basin Management Unit (LTBMU) that would guide management of National Forest System (NFS) lands in the Lake Tahoe Basin for approximately the next 15 years by providing:

- A framework to manage for ecological sustainability and contribute to social and economic sustainability, with resilient ecosystems and watersheds, diverse plant and animal communities, and the capacity to provide people and communities with a range of social, economic, and ecological benefits for present and future generations.
- Strategic direction to guide site-specific project decisions in the context of broader social and ecological considerations.
- Guidance that is flexible enough to remain effective in the face of changing conditions and policies and enable the Forest Supervisor to work with the public to make the best possible decisions in the future.

The Forest Plan – not the EIS -- is the guiding document for determining Forest commitments, intentions, etc., and to the extent to two documents are inconsistent on what the Plan may require, the Plan language governs.

**Chapter 1** describes the Plan area and sets forth the purpose and need for plan revision and also describes what changed between DEIS and FEIS. The decision to be made and how Forest Plan decisions fit into a broader planning framework are described, along with the Forest Plan management direction and its application. Public involvement in the planning process is summarized; the major plan revision themes are introduced, accompanied by brief descriptions of the issues around which alternatives were developed. Chapter 1 concludes with a list of applicable laws, regulations, policies, and executive orders.

**Chapter 2** describes the five alternatives considered in detail along with the alternatives considered but not analyzed in detail. The process for developing a range of reasonable alternatives is described, and the elements that do not vary by alternative are listed. The five alternatives are characterized in terms of their key strategies, how they address the relevant issues, and how the Plan management direction would vary. Chapter 2 concludes with several tables that compare the alternatives in different ways.

**Chapter 3** includes the description of the affected environment and the analysis of the environmental consequences of implementing each of the four alternatives. This chapter includes an affected environment description and effects analysis specific to each of the resources with the potential to be affected. Cumulative effects are analyzed in a single section for all resources. Also included are findings about environmental justice, the relationship of short term uses and long term productivity, unavoidable adverse impacts, and irreversible and irretrievable commitments of resources.

The current Forest Plan was approved in 1988, and has been amended several times. The proposed plan revision addresses four key themes: forest health and fuels reduction, watershed restoration, recreation, and access. These four themes are driven by several factors. Past historic uses and fire suppression have impacted Lake Tahoe's forests and watersheds, reducing resiliency and threatening the safety of communities. One of the highest concentrations of National Forest visitor use in the country presents management challenges that include improving the infrastructure to support increasing visitor use while protecting natural and cultural resources along with the scenic qualities that draw visitors and residents.

## 1.2 Changes between DEIS and FEIS

Major changes included the following:

- Added Alternative E, which is the Preferred Alternative for the FEIS, and is described in detail in Chapter 2.
- Revised, clarified, and expanded the effects analysis in Chapter 3 in response to public comments. Changes included expanding analysis of effects to resources from OSV use, adding an effects analysis for the Range resource, and consideration of additional references provided in comments.
- Revised, clarified, and expanded Forest Plan components in response to public and internal concerns. Changes are described in Chapter 2, Section 2.6.1.
- Analysis and maps include one additional California spotted owl PAC and 3 additional northern goshawk PACs.
- The FEIS analysis and Revised Plan include the newly revised Region 5 Sensitive Species list, shown in Appendix E.
- Wolverine has been added to the list of species proposed for listing under the Endangered Species Act.
- Taxonomy of marten and wolverine are updated based on current scientific understanding.
- Terrestrial wildlife analysis has been updated to include 2012 survey data. A mapping error in the DEIS has been corrected such that all Inventoried Roadless Areas are now included on the maps, and the total acres have also been adjusted to correct this error.
- The existing inventory of developed recreation sites was found to be inaccurate and was revised. The revised inventory is described below (Table 1-1) and is also reflected in Chapter 2 Table 2-1. The effects analysis in Chapter 3 was updated for all resources to reflect these new numbers.

**Table 1-1. Changes to developed recreation baseline between DEIS and FEIS.**

| Unit of Measure | DEIS Existing Conditions |
|---|---|
| Permitted Acres | 1,300 |
| Overnight Accommodation Units | 1,072 |
| Day Use Parking Spaces | 2,260 |
| Ski Areas (Operational Footprint Acres) | 3,491 |
| **Unit of Measure** | **FEIS Existing Conditions** |
| Recreation Site Acres | 1,163 |
| Overnight Accommodation Units | 1,192 |
| Day Use Parking Spaces | 2,875 |
| Ski Areas and Slopes (Operational Footprint Acres) | 3,997 |

- Changes based on the Science Review include:
  - Added additional references to support analysis in fire and fuels, vegetation, air quality, soils, recreation, terrestrial wildlife resource sections.
  - Updated description of how the Spectrum model was used.

## 1.3 Plan Area

The LTBMU was established in 1973, to facilitate unified management of NFS lands within the Lake Tahoe Basin watershed. These lands were previously managed by three separate national forests: the Tahoe, the Eldorado, and the Humboldt-Toiyabe. The LTBMU encompasses nearly 155,000 acres (600 km²) of NFS lands (78% of the land in the Lake Tahoe Basin), and ranges in altitude from approximately 6,225 feet at lake level to 10,881 feet at Freel Peak.

Projects and programs include habitat management, fire management, and urban forest parcel management. Additionally, the LTBMU provides and maintains high quality recreational opportunities for millions of visitors and residents annually. Many common forest activities such as mining or grazing are either not a part of LTBMU management or play a very small role.

The LTBMU manages NFS lands within a mix of forest and urban communities that surround Lake Tahoe. The work of the Forest Service supports (and is supported by) many partners. Other federal, state and local agencies are working together with the LTBMU to conserve and restore natural and cultural resources, and enhance the recreational values of the Lake Tahoe Basin.

While the Forest Plan applies only to NFS lands within the Lake Tahoe Basin, the environmental analysis considers a broader area. Wildlife species ranges often extend beyond the administrative boundaries. Similarly, coordination with neighboring Forests and other jurisdictions is important for vegetation management, wildfire suppression, and fuel reduction. Analysis of cumulative effects considers lands and other plans outside the administrative boundary.

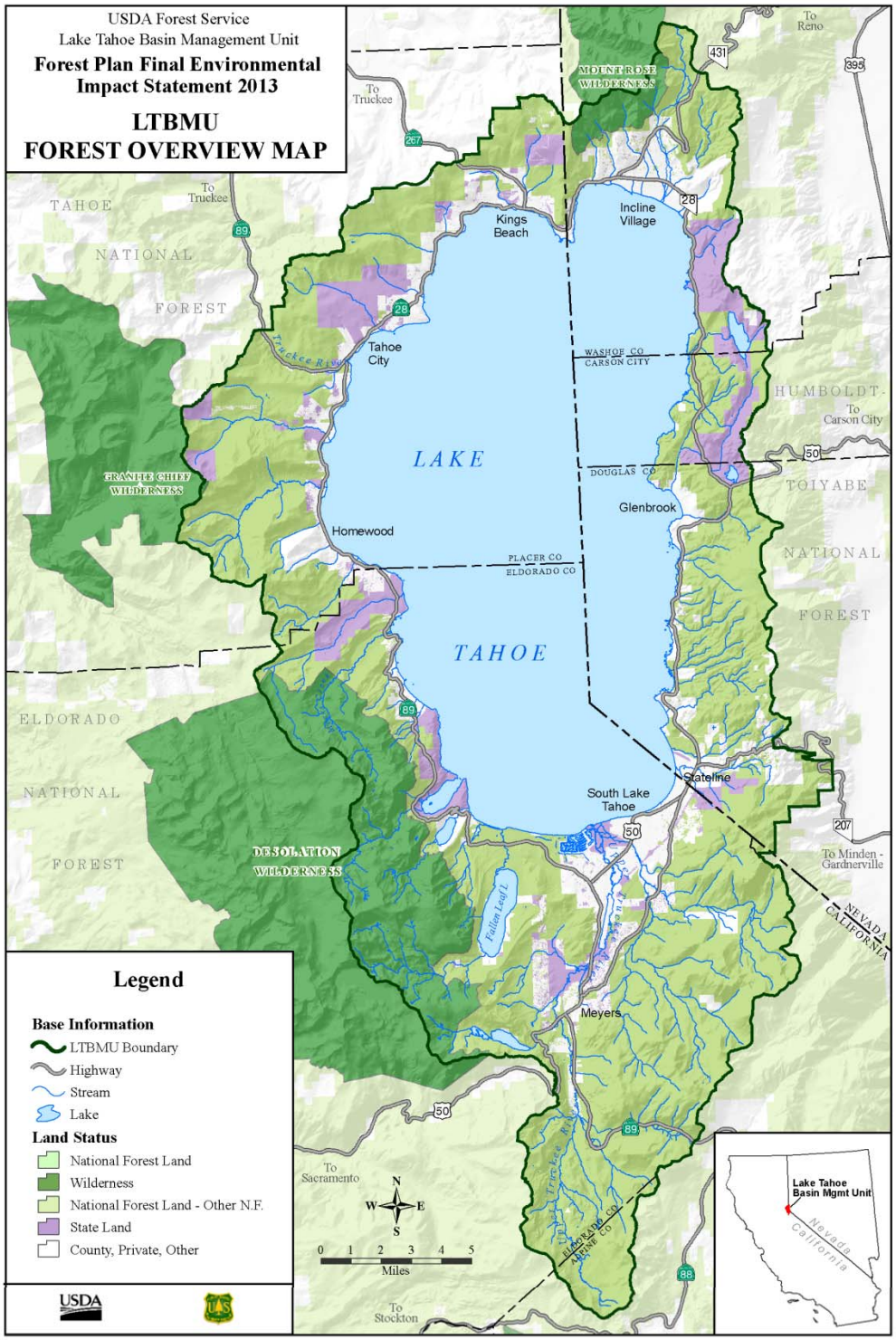


**Figure 1-1. Vicinity map of National Forest System Lands on the LTBMU**

## 1.4 Applicable Planning Regulations

The Forest Service proposes to revise the LTBMU Forest Plan under the National Forest Management Act of 1976 (NFMA, 16 U.S.D. 1604, et seq.) and the provisions of the 1982 planning regulations (36 CFR Part 219). The 2012 Regulations currently in effect allow use of the previous regulations for plan revisions initiated before the 2012 regulations took effect(36 CFR 219.17 (b) (3).

## 1.5 Purpose and Need for Forest Plan Revision

The NFMA and its implementing regulations (36 CFR 219), require Forest Plan revision:

- At least every 15 years
- When conditions or demands in the area covered by the Plan have changed significantly
- When changes in agency policies, goals, or objectives would have a significant effect on forest level programs
- When monitoring and evaluation indicated that a revision is necessary

Based on these parameters, there is a need to revise the LTBMU Forest Plan:

- It has been more than 15 years since the Regional Forester approved the 1988 Plan.
- Agency goals and objectives, along with other national policies and programs (such as Government Performance Results Act (GPRA), have changed.

New issues, trends, and management concerns have been identified that could change the management goals, suitable uses of land allocations, standards and guidelines, and the monitoring and evaluation program in the 1988 Plan. These include the following:

- Watershed restoration theory and techniques have changed. Given a changing climate, there is a need for restoration strategies and techniques that enhance the ability of stream systems to adapt to the more extreme weather and climate conditions that are predicted. There is a need to update the Plan to reflect these changes.
- There is a need to update management direction for water quality protection and enhancement to meet the Lake Tahoe TMDL milestones and comply with other tributary watershed TMDLs.
- Aquatic invasives are a new management concern not addressed in the current Forest Plan. There is a need for management direction to control and eradicate these species.
- There is a growing recognition of the need to manage hazardous fuels in the Lake Tahoe Basin. Since the adoption of the SNFPA, new science relating to hazardous fuels and forest health has emerged (e.g. GTR-220). We now recognize that forests must be able to adapt to the weather conditions accompanying climate change, such as increased frequency of both extreme wet and extreme droughty periods. There is a need to update the Plan to reflect this new science.

- There is a need to provide management direction to perpetuate habitats which support old growth-dependent species. The management direction provided by the SNFPA (2004) largely still applies, but minor changes have been identified to improve the perpetuation and health of this habitat type.
- Recreation demands have changed dramatically since 1988 and continue to change. Mountain biking was a new activity at time of the 1988 Plan decision, and snowboarding did not exist. New activities continue to be developed, and the popularity of current activities changes along with population demographics. Climate change brings uncertainty about the future availability of traditional winter recreation opportunities such as downhill skiing and snowboarding. There is a need to provide for changing demands and to provide year round opportunities to support recreation demands and the local economy.
- There is a need to update the Forest Plan Monitoring and Evaluation Plan to enable evaluation of the success of the Forest Plan in moving the Forest Plan area toward the new desired conditions.

These issues, trends, and management concerns are described in more detail in section 1.7, and have been documented in several publications:

- Pathway 2007 Draft Evaluation Report v1.0
  (TRPA, USDA Forest Service LTBMU, LWRQCB and NDEP 2005)
- Pathway 2007 Draft Technical Supplement (Unpublished, Project Record PR#1)
- Pathway 2007 Public Lands and Waterways Vision Summary 2006 (TRPA 2006b)
- Pathway 2007 Regional Vision Summary July 2007 (TRPA 2007c)
- Comprehensive Evaluation Report (CER) (USDA Forest Service LTBMU 2006)
- LTBMU Climate Change Trend Assessment (Appendix D).
- Analysis of the Management Situation (AMS) (Unpublished, Project Record PR#2)

## 1.6 Decision Framework

### Levels of Planning

Planning occurs at three levels—national strategic planning, NFS unit planning, and project or activity planning.

The national strategic plan establishes goals, objectives, performance measures, and strategies for management of the NFS, as well as the other Forest Service mission areas: Research and Development, State and Private Forestry, and International Programs. The Chief of the Forest Service is responsible for national planning, including preparation of the Forest Service strategic plan. The national strategic plan is required under the Government Performance and Results Act of 1993 (5 U.S.C. 306; 31 U.S.C. 1115–1119; 31 U.S.C. 9703–9704), which is integrated with the requirements of the Forest and Rangeland Renewable Resources Planning Act of 1974, as amended by the NFMA.

At the second level of planning, land and resource management plans (LRMPs, forest plans) are established for administrative units of the NFS (typically an individual forest, grassland, or prairie although in some instances, a plan will cover more than one forest or grassland). Forest plans establish requirements and constraints for on-the-ground management decisions; they do not authorize projects or activities and do not commit the Forest Service to take any action. These strategic plans do not:

- create, authorize, or execute any ground-disturbing activity;
- grant, withhold, or modify any permit or other legal instrument;
- subject anyone to civil or criminal liability; or
- create legal rights.

The Regional Forester is the Responsible Official for the LTBMU Forest Plan Revision, and will sign the Record of Decision, which describes the strategic direction and management intent for the LTBMU over the next 15 years, the decisions made, and the rationale for the decisions.

The third level of planning includes development of on-the-ground projects and activities, which are designed to achieve the goals, desired conditions, and objectives of the Forest Plan. Projects and activities must be consistent with the Plan as described in the Introduction section of the Revised Forest Plan. The LTBMU Forest Supervisor is the responsible official for decisions about projects and activities on NFS lands managed by the LTBMU.

The environmental effects of decisions made at the unit and project levels are analyzed in accordance with the National Environmental Policy Act (NEPA) and there are opportunities for public involvement at both levels.

## Decision to Be Made

The decision to be made by the Regional Forester is whether to:

- Revise the current Forest Plan incorporating one of the action alternatives;
- Revise the current Forest Plan by combining measures from two or more alternatives; or
- Take no action at this time and continue to manage under the current Forest Plan, as amended.

### Six Plan Decisions

The adoption of the revised land management plan would include six decisions for the long-term management of the LTBMU. These decisions are:

1. **Adoption of multiple-use goals and objectives, including a description of the desired condition of the LTBMU (36 CFR 219.11(b) 1982).** The desired conditions are described in Part 1: Vision of the Draft Forest Plan. Objectives are described in Part 2: Strategies of the Draft Forest Plan, and objectives associated with other action alternatives are found in Appendix I.
2. **Adoption of Forest-wide standards and guidelines (36 CFR 219.11(c) and 36 CFR 219.13 through 219.27 1982).** Forest-wide standards and guidelines are in Part 3: Design Criteria of the Draft Forest Plan along with the other guidance that will be referenced during project implementation.
3. **The identification of the suitable uses for each management area in order (36 CFR 219.11(c) 1982).** Suitable uses are shown in the management area table and accompanying descriptions, and the accompanying maps and appendices in Part 2 of the Draft Forest Plan.
4. **The establishment of the monitoring and evaluation requirements for implementation of the forest plans (36 CFR 219.11(d) 1982).** The Monitoring and Evaluation Plan is found in Appendix A.
5. **Recommendations to Congress of areas eligible for wilderness designation (36 CFR 219.17(a) 1982) and rivers recommended for inclusion in the Wild and Scenic River System (16 USC 1271-1287 and 36 CFR 297).** Recommendations to Congress for establishing wilderness and other special designations will be made in the Record of Decision (ROD) for the FEIS for the Plan and are described in the alternatives.
6. **Determination of suitability and potential capability of lands for resource production, (36 CFR 219.14 through 36 CFR 219.26 1982).** The timber suitability analysis is found in Appendix G.

### Transition to the Revised Plan

The decision to adopt a revised Plan for the LTBMU would involve a determination of which projects would continue to be implemented under the 1988 LRMP and which projects would be implemented under the revised Plan. This determination will be documented in the final ROD.

# 1.7 Plan Content

One of the goals of this revision process is to create a strategic plan that is in step with contemporary planning theories and practices while adhering to the provisions of the 1982 planning regulations.

The revised plan has a different organization than the 1988 Forest Plan for the LTBMU. This organization is the result of extensive work done at the national level to improve the land management planning process for the Forest Service.

The Revised Forest Plan includes management direction (CFR 219.3 1982), and explanatory material. The management direction is also referred to as the Plan components. Management direction in the Draft Forest Plan includes:

- Desired Conditions
- Objectives
- Management Area and Suitability of Areas direction
- Designated and Recommended Special Area guidance
- Standards and guidelines

The explanatory material is included to clarify the use of the management direction and includes introductory text, definitions (glossary), and other material. It also includes the Program Strategies, which describe the preferred means of accomplishing work to move the Plan area toward the desired conditions.

The Revised Forest Plan is organized in three parts, described below, and in the Introduction section of the Revised Forest Plan.

### Part 1: Vision

The **Desired Conditions** comprise the overall vision for the LTBMU (CFR 219.11 (b) 1982). Desired conditions are long term aspirations that describe the specific ecological, social, and/or economic attributes toward which management of the land and resources should be directed. The outcome of land management activities over time should be to move the Plan area toward achievement of the desired conditions.

Desired conditions are specific enough to allow progress toward their achievement to be determined, but their attainment is likely to vary in time and space. Some may be attained relatively quickly throughout the entire LTBMU, while others may only be attained in a few areas over many decades. The collaboratively developed desired conditions from the Pathway process (shown in italics in the Revised Forest Plan) express a shared vision for the Lake Tahoe Basin.

## Part 2: Strategy

The Strategy section describes how the Forest intends to move the Plan area toward the desired conditions. This part of the Plan includes the Program Strategies and Objectives, the Management Emphasis Areas and Suitable Uses, and descriptions of the Designated and Recommended Special Areas on the LTBMU.

**Program Strategies** describe the principal management approaches the responsible official is inclined to use in implementing the Plan.

The **Objectives** are specific goals to be accomplished in a specified time period (CFR 219.11 (b) 1982). Objectives represent milestones on the path to achievement of the desired conditions.

The **Management Areas and Suitability of Areas** sections provide broad guidance about the kinds of activities and uses that are appropriate in a given area. Resource overlays, such as the Wildland Urban Interface (WUI) or the Protected Activity Centers (PACs) for goshawks and California Spotted Owls focus the scope of appropriate activities and uses, while Standards and Guidelines provide more specific boundaries and constraints on activities and uses. This body of prescriptive direction (CFR 219.11c1982) guides management towards attainment of objectives and desired conditions.

**Designated and Recommended Special Areas** are lands within the NFS that receive special management consideration because of their unique or special characteristics, for example, wilderness, research natural areas, or national scenic trails.

## Part 3: Design Criteria

**Standards and guidelines** (CFR 219.11c 1982) establish constraints and boundaries for management activities.

A **Standard** is a mandatory constraint on project and activity decision-making, established to help achieve or maintain the desired condition or conditions, to avoid or mitigate undesirable effects, or to meet applicable legal requirements.

A **Guideline** is a constraint on project and activity decision making that allows for departure from its terms, so long as the intent of the guideline is met. Guidelines are established to help achieve a desired condition or conditions, to avoid or mitigate undesirable effects, or to meet applicable legal requirements.

## 1.8 How the Management Direction Is Applied

All proposed projects and activities are reviewed to ensure they are consistent with the Forest Plan. When a project or activity is proposed, the first step is to determine whether it is consistent with the management area direction for the project location. This includes the Suitable Uses, any applicable management area Standards and Guidelines, and relevant law, regulation, and policy. Suitable Uses are also prescribed for Designated Special Areas. This management direction is found in Part 2: Strategies of the Draft Forest Plan.

In some cases a use or activity is clearly suitable or not suitable in a given area, but in many cases, it is necessary to check for any resource overlays in the project area which may constrain activities and uses. Resource overlays are described in Part 2: Strategy of the Revised Forest Plan and are displayed on the maps contained at the end of the Revised Forest Plan, Volume II of this FEIS (e.g, Plan Map 4: Fire Management Units; Plan Map 9: Recreation Opportunity Spectrum, etc). They show the approximate location and extent of information including Stream Environment Zones, California Spotted Owl nest sites, historic sites, designated special areas, utilities, and other resources that require special consideration. Many of the resource overlays are associated with specific Standards and Guidelines, found in Part 3: Design Criteria of the Revised Forest Plan.

Finally, a proposed project is checked for consistency with the applicable forest-wide Standards and Guidelines, as required by the NFMA (16 U.S.C. 1604(i)). The process for determining consistency with this management direction is described in the introductory material at the beginning of the Forest Plan. Achieving consistency with the Forest Plan often requires application of project-specific direction, sometimes referred to as Resource Protection Measures or Project Design Features, which are included in the Proposed Action for the project.

While most projects are proposed with the intent of furthering attainment of one or more desired conditions and objectives, some projects, such as location of new cell phone towers, are not intended to meet desired conditions. These types of projects are not prohibited, but must still be located, designed, and managed in accordance with the Plan management direction and applicable law, regulation, and policy.

## 1.9 The Role of Science in Environmental Analysis

This FEIS has been prepared to ensure that the responsible official has access to the best available scientific information in order to make informed decisions in revising the LTBMU Forest Plan. It is important to take into account the best available scientific information to increase the understanding of risks and uncertainties and improve assumptions made in the course of decision making.

Science is an important source of information for decision making. The best available scientific information is used to inform decisions. However, science is just one source of information for the responsible official and only one aspect of decision making. Land management planning is

complex and decision makers must consider such things as balancing competing values or competing ecological concerns. There may also be competing scientific perspectives or uncertainty in the science.

The Pacific Southwest Research Station conducted a formal science review of the DEIS and Draft Forest Plan in June-July 2013. A panel of nine subject matter experts evaluated the following major subject areas:

- Habitat and species management
- Vegetation management
- Fuels management
- Climate change
- Effects of recreation activities
- Watershed
- Air quality
- Social and human dimensions

The review evaluated the FEIS analysis in the context of four questions:

- Is the relevant scientific information considered?
- Is the scientific information reasonably interpreted and accurately presented?
- Are the uncertainties associated with the scientific information acknowledged and documented?
- Are the relevant management consequences identified, including associated risks and uncertainties?

The FEIS has been adjusted in response to this review. The Science Consistency Review Report is available in the Project Record along with the Interdisciplinary Team's responses to the individual reviewer's comments.

## 1.10 Summary of Public Involvement, Scoping, & Collaboration

The LTBMU initiated Forest Plan Revision in 2004. Public involvement opportunities began with an inter-agency collaborative process called Pathway 2007 (Pathway). Through Pathway, the partner agencies and the public developed a shared vision for the future of the Lake Tahoe Basin which has been incorporated in the Draft Forest Plan. The Pathway desired conditions which are included in the Vision section of the Draft Forest Plan are directly linked to the environmental carrying capacity thresholds for the Lake Tahoe Basin (Public Law 96-551; TRPA, USDA Forest Service LTBMU, LWRQCB and NDEP 2005). These thresholds are environmental goals that apply to the entire Lake Tahoe Basin.

The LTBMU held additional Forest Service focused workshops in the fall of 2008. Two initial workshops were held to discuss the Forest Plan development approach and gauge further public interest in planning topics. Based on this input, three additional workshops were held. Topics discussed in detail were forest health, wildlife habitat and fuels reduction, fuels reduction and water quality, and recreation opportunities.

Public involvement up until the summer of 2009 resulted in a Proposed Land Management Plan developed through a collaborative, iterative process. A Notice of Intent to prepare a Forest Plan and EIS was published on March 19, 2010.

Two public meetings were held in the spring of 2010 to provide an update on the revision process and seek public input on development of alternatives for the Forest Plan EIS. Written comments and letters were received from interested parties during this scoping period.

Beginning in the winter of 2008 and continuing through 2013, direct meetings were held with interested agencies and interest groups to discuss plan content.

The DEIS was available for comment from June 1through August 30, 2012. Four public informational meetings were held, two on July 17, 2012 at the Forest Supervisors Office in South Lake Tahoe, CA and two on July 18, 2012 at the North Tahoe Conference Center in Kings Beach, CA. Over 250 individuals attended these meetings. In addition, on July 19, 2012 a webinar was hosted online by the LTBMU Forest Plan Revision IDT with approximately 20 attendees.

During the comment period the LTBMU received over 18,500 emails and letters commenting on the DEIS and supporting documents. All comments from these letters were sorted, grouped by subject and analyzed. The Response to Comment document can be found in Appendix N of Volume III of this document package.

A detailed description of the public participation process for Forest Plan revision can be found in the LTBMU Forest Plan Collaboration and Public Participation Process report in the Project Record.

## 1.11 Plan Revision Issues

The issues and concerns expressed during public scoping and collaboration have been used to develop the alternatives considered in this analysis. The issues that emerged during the public involvement process have been grouped into four major issue areas:

- Watershed Health and Aquatic Ecosystems
- Terrestrial Ecosystems
- Recreation
- Access and Travel Management

Each issue area is described in more detail below.

## Watershed Health and Aquatic Ecosystems Issues

### Degraded Watersheds

While there is nearly universal agreement that some watershed systems in the Lake Tahoe Basin are out of balance, there is some disagreement about solutions. Some believe that major geomorphic stream channel restoration projects are needed to restore watershed health and aquatic habitats, reverse the trend of declining clarity in Lake Tahoe.

Others believe that the preferred course of action is to simply remove the major stressors to watershed health (e.g. grazing, barriers to stream flow) and allow natural processes to return systems to equilibrium over time.

**How the alternatives address the issues:**

The action alternatives include both approaches. All alternatives would complete currently funded watershed restoration projects. After completion, Alternatives A, B, C and E continue watershed restoration programs as funding permits. Alternative D employs a more passive approach in which nature would be allowed to take its course.

### Public Use Impacts to Aquatic Habitats

Some people would like to see development removed from sensitive aquatic habitat and riparian areas, and see the areas restored to more natural conditions. Others enjoy the public amenities in these areas and would like to see them remain, or be expanded.

**How the alternatives address the issues:**

Removal of development from SEZs is an option in all the action alternatives, but is emphasized more in Alternative D. Implementation of BMPs and other improvements to mitigate potential habitat impacts are included in all alternatives.

### Vegetation Management Impacts to Stream Environment Zones

Some people believe that active management of SEZs is the best course of action to reduce fuel loads and restore native vegetation communities and habitats. Others believe that management activities should be minimized because they pose unacceptable risks to water quality, soil productivity, and habitats.

**How the alternatives address the issues:**

Alternatives A, B, C and E emphasize active SEZ management while Alternative D emphasizes passive SEZ management.

### Aquatic Invasive Species

There is general agreement about the removal of certain aquatic invasive species, such as Asian clams and Quagga mussels. However, while some people favor the eradication of all invasive

aquatic species as part of aquatic habitat restoration, others would prefer to retain warm-water sport fishes that are considered aquatic invasives. While LTBMU is an active partner in AIS management, our role is limited by the fact that the Forest Service does not manage Lake Tahoe, but rather manages much of the surrounding lands and adjacent waters.

**How the alternatives address the issues**:

Alternative A only includes strategies for management of terrestrial invasive plant species. Alternatives B, C, D and E include strategies to prevent new infestations and collaborative strategies to control or eradicate known populations. Alternatives B, C and E include strategies to control or eradicate all species, including warm-water sport fishes. Alternative D includes strategies that limit management of AIS to high priority species and would not control or eradicate warm-water sport fishes.

### Climate Change

There is a growing recognition that climate change is likely to result in hydrologic changes such as earlier snowmelt and higher peak flows in Lake Tahoe Basin streams.

Some people believe that manipulating stream channel systems to restore natural stream and watershed processes will result in increased watershed resilience that will promote maintenance of watershed function in changing climatic conditions.

Others believe that any climate change is best addressed by allowing natural processes to control the rate of recovery.

**How the alternatives address the issues:**

After completion, Alternatives A, B, C and E continue to implement watershed restoration projects to increase resilience as funding permits, while Alternative D takes a more passive approach in which nature would be allowed to take its course.

## Terrestrial Ecosystems Issues

### Forest Health, Hazardous Fuels, and Terrestrial Wildlife Habitat

There is broad agreement that dangerous levels of hazardous fuels are present throughout many parts of the Lake Tahoe Basin and that the natural fire regime has been severely altered in many areas. There is also agreement that the mix of vegetation species and seral stages of vegetation communities are out of balance. There is disagreement on the best way to bring health and balance to our forests while sustaining wildlife.

Some groups believe that the pace and scale of current restoration efforts is insufficient to keep up with the current pace of degradation, the effects of altered fire regimes, and the changing climate. Although restoration of natural process is the ultimate goal, under current conditions, allowing natural process to operate might have catastrophic consequences, including devastation to human communities and habitat for special status species.

Others believe that in most areas, protection and preservation are preferred over active management. Thinning treatments that attempt to mimic natural processes will have harmful impacts to soil and water as well as reducing wildlife habitat quality.

**How the alternatives address the issues:**

The alternatives range from proposing more aggressive fuels treatments than those currently planned (Alternative C) to using mechanized thinning treatments only in the WUI defense zone (Alternative D).

The acres of mechanized treatments (emphasized the most in Alternative C), diameter of trees to be removed (most restrictive in Alternative D and least restrictive in Alternatives B and C), the use of prescribed fire (emphasized the most in Alternative D), and the areas suitable for use of natural ignitions to accomplish restoration (emphasized the most in Alternatives B and D) would vary by alternative.

The approach to sustaining and enhancing old growth forest would vary by alternative, with Alternatives A and D emphasizing the most passive approach.

Full protections required by law to maintain habitat for special status species would be provided in all alternatives, but Alternatives B and C would also include habitat restoration for special status species.

### Climate Change

Given current conditions and projections, some people believe that aggressive management is necessary to create conditions that are resilient to climate change. Others believe that allowing natural processes to operate as freely as possible will provide the mechanisms for restoration and produce the resilience needed to adapt to climate change. Terrestrial refuge areas to promote plant and animal species survival under changing climatic conditions would be provided under all alternatives.

**How the alternatives address the issues:**

Alternatives A, B, and C emphasize active management to promote resilience in vegetation communities while Alternative D emphasizes a passive approach in which nature provides most of the change.

## Recreation Issues

### Balance of recreation opportunities

Public opinions varied from those preferring urbanized settings with many social encounters and service amenities such as those opportunities offered at Forest Service resorts, to those seeking more primitive opportunities such as those offered in backcountry settings or remote beaches.

**How the alternatives address the issues:**

Alternative A would provide the most opportunities in developed settings while Alternative D would provide the most opportunities in primitive settings.

## Recreation development and economic opportunities

Some people believe that recreation development should be expanded and/or re-built to keep pace with demographic changes and user preferences as well as providing economic opportunities through year round use. Opinions were expressed that expansion should be allowed outside the currently developed areas, such as providing more parking to accommodate peak demands at popular sites. Other interests suggested that the Forest Service should provide more opportunities for private concessions and outfitter guides.

On the other side were those wanting to limit recreation development because it is at or exceeding the capacity for which it was originally intended. This group also expressed a desire for more opportunities that provide a greater degree of solitude than is normally found at developed sites, opposes construction of new developed recreation sites, and favors further restrictions to minimize use conflicts and resource impacts.

**How the alternatives address the issues:**

Opportunities for expansion of developed recreation would be greatest with Alternative C, while Alternative D would not allow expansion.

## Climate Change

There is a concern that climate change may limit some recreation opportunities, such as alpine skiing.

**How the alternatives address the issues:**

To compensate for opportunities that may be lost, additional kinds of recreation opportunities may be provided in other seasons, to enhance recreation sustainability and contributions to social and economic sustainability.

## Wilderness

Some groups felt that certain areas of NFS lands exhibit strong wilderness characteristics and should be evaluated and recommended for inclusion into the National Wilderness Preservation System. Others felt that the current amount of wilderness is adequate.

**How the alternatives address the issues:**

Alternatives A, B, and E retain the currently designated wildernesses, while Alternative C recommends one additional wilderness area and Alternative D recommends two additional wilderness areas.

# Access and Travel Management Issues

## Access to National Forests via facilities, roads and trails

Some people would like LTBMU to increase the inventory of facilities, trails and roads to improve access to public lands, while others would prefer that LTBMU decrease the inventory of facilities, trails and roads to minimize impacts to public lands.

There is general agreement about the need to plan and manage appropriately sized parking areas at popular destinations that reduce or avoid environmental impacts, but there is disagreement about how much parking should be provided.

**How the alternatives address the issues:**

The service level of trails and roads varies by alternative. The amount of managed parking also varies by alternative.

## Multi-Modal Transit

Some people believe that there is a need to lessen the dependence on the automobile for site access to alleviate pollution and crowding. They would like the Forest Service to encourage alternative transportation options including public transit, boat ferries, pedestrian, equestrian, and bike trails to NFS lands. Some would also like the Forest Service to support water trails and take a more active role in partnering to develop bike path systems that will serve as alternative transportation to the private automobile.

Others prefer to access National Forest lands by private automobile and would like to retain and expand parking facilities.

**How the alternatives address the issues:**

All alternatives would provide for the use of transit. Alternative D would provide the least amount of managed parking while Alternative C would provide the most, with Alternatives A B, and E in between. The alternatives provide a range of solutions, including strategies to encourage use of alternative transportation and provision of additional parking in some areas.

## Use Conflicts

Some people prefer that mechanized use (mountain bikes) be separated from non-mechanized uses in time and/or space, while others prefer trails open to shared use. Some people would like to see more areas closed to motorized winter use, while others would like to see more areas open to motorized winter use, and some approve of the current balance of open and closed areas.

**How the alternatives address the issues:**

All alternatives include a strategy for managing use conflicts. Alternative D provides the greatest amount of wilderness and backcountry as compared to Alternatives A, B, C and E which offer differing levels of mechanized non-mechanized opportunities. Designation of uses on specific trails is most appropriately addressed at the project level.

The current balance of motorized and non-motorized winter use would be retained in Alternatives A, B, C and E. Alternative D would decrease the area open to motorized winter use.

## 1.12 Laws, Regulations and Policies

The National Environmental Policy Act of 1969 (NEPA) at 40 CFR 1502.25(a) directs "to the fullest extent possible, agencies shall prepare draft environmental impact statements concurrently with and integrated with … other environmental review laws and executive orders." NFS lands managed by the LTBMU will be guided by applicable laws, regulations, policies. The LTBMU Forest Plan supplements, but does not replace, the direction from those sources. This section lists these other laws, regulations and policies. Laws passed by Congress such as the NEPA, the National Forest Management Act of 1976 (NFMA), the Multiple Use Sustained Yield Act of 1964 (MUSYA), and the Endangered Species Act of 1973 (ESA), provide direction for certain aspects of management. At the national level, the Resources Planning Act of 1974 (RPA) program gives broad direction and the Administrative Procedure Act of 1966 (APA) (P.L. 79-404) governs the way in which administrative agencies of the federal government may propose and establish regulations.

Applicable laws, regulations, policies, and executive orders, as well as Forest Service memoranda of understanding, conservation strategies, and programmatic agreements, are listed here. The relevant documents are available on the Forest Service website (http://www.fs.fed.us/publications/) and from Forest Service offices. The list included here is not all inclusive.

- Endangered Species Act (ESA)
- National Forest Management Act (NFMA)
- National Environmental Policy Act (NEPA)
- Clean Water Act (CWA)
- Lahontan Region Basin Plan
- Nevada State Environmental Commission Rules
- Conservation Strategy for Tahoe Yellow Cress (*Rorippa subumbellata*). Pavlik, B. *et al.* 2002.
- The Healthy Forest Restoration Act, August 2002
- Clean Air Act
- National Fire Plan 2002; including the following:
  - Managing the Impacts of Wildfires on Communities and the Environment: A Report to the President in Response to the Wildfires of 2000, September 2000
  - Protecting People and Natural Resources- A Cohesive Fuels Treatment Strategy, February 2006
  - A National Cohesive Wildland Fire Management Strategy - 3/17/2011
  - A Collaborative Approach for Reducing Wildland Fire Risks to Communities and the Environment- 10-Year Strategy Implementation Plan, December 2006.
- Federal Wildland Fire Policy, December 12, 1995
- Forest Service Manuals and Handbooks

- Guidance for Implementation of Federal Wildland Fire Management Policy (Feb. 13, 2009).
- Tribal Forest Protection Act of 2004
- Organic Act of 1897 (Title 16, United States Code (U.S.C.), section 473-478, 479-482, 551)
- Forest and Range Renewable Resource Planning Act of 1974, as amended by the NFMA.
- Wild Horses and Burros Protection Act of 1971 (33 U.S.C. §§1251 et seq.)
- Rescissions Act of 1995 (P.L. 104-19)
- Public Rangelends Improvement Act (PRIA) of 1978 (43 U.S.C. §§1901 et seq.)
- Bankhead-Jones Farm Tenant Act of 1937 (7 U.S.C. §§1010 et seq.)
- Antiquities Act of 1906 (16 U.S.C. 431)
- Historic Sites Act of 1935 (16 U.S.C. 461)
- National Historic Preservation Act of 1966 (NHPA), as amended (16 U.S.C. 470), and its implementing regulation 36 CFR 800
- Archaeological and Historic Preservation Act of 1974 (AHPA) (16 U.S.C. 469)
- Archaeological Resources Protection Act of 1979 (ARPA), as amended (16 U.S.C. 47Oaa et seq.), as implemented by 36 CFR part 296
- Native American Graves Protection and Repatriation Act of 1990 (NAGPRA), as amended (25 U.S.C. 3001), as implemented by 43 CFR Part 10, Subpart B – Human Remains, Funerary Objects, Sacred Objects, or Objects of Cultural Patrimony From Federal or Tribal Lands
- Curation of Federally-owned and Administered Archaeological Collections, 36 CFR part 79
- National Indian Forest Resources Management Act (NIFRMA), Public Law 101-630, November 28, 1990
- American Indian Religious Freedom Act (AIRFA) (Public Law 103-344, October 6, 1994)
- Tribal Forest Protection Act of 2004 (Public Law 108-278, July 22, 2004)
- Executive Order 11593, Protection and Enhancement of the Cultural Environment, issued May 13, 1971
- Executive Order 13007, Indian Sacred Sites, issued May 24, 1996
- Executive Order 13175, Consultation and Coordination with Indian Tribal Governments, issued November 6, 2000
- Executive Order 13287, Preserve America, issued March 3, 2003
- The First Amended Regional Programmatic Agreement Among the U.S.D.A. Forest Service, Pacific Southwest Region, California State Historic Preservation Officer, and Advisory Council on Historic Preservation Regarding the Process for Compliance with Section 106 of the National Historic Preservation Act for Undertakings on the National Forests of the Pacific Southwest Region (2001)
- The Programmatic Agreement Among the U.S.D.A. Forest Service, Pacific Southwest Region (Region 5), California State Historic Preservation Officer, Nevada State Historic Preservation Officer, and the Advisory Council on Historic Preservation Regarding the Processes for Compliance with Section 106 of the National Historic Preservation Act for Management of Historic Properties by the National Forests of the Pacific Southwest Region (2013)

- The Term Permit Act of 1915 (38 Stat. 1101, as amended; 16 U.S.C. 497)
- The Wilderness Act of 1964 (16 U.S.C. 1131-1136)
- The Federal Lands Recreation Enhancement Act, Title VIII, Div. J., of the Consolidated Appropriations Act for 2005, Pub. L. 108-447
- The Architectural Barriers Act of 1968, as amended (42 U.S.C. 4151 et seq.)
- The Rehabilitation Act of 1973, as amended, Sections 504 and 508 (29 U.S.C. 794 and 794d)
- Americans with Disabilities Act of 1990 (ADA) (42 U.S.C. 12101 et seq.)
- Section 7 of the Granger-Thye Act of 1950 (16 U.S.C. 490, 504, 504a, 528, 555, 557, 571c, 572, 579a, 580c-5801,581i-1)
- The National Forest Roads and Trails Act of 1964 (16 U.S.C. 532-38)
- The National Forest Ski Area Permit Act of 1986 (16 U.S.C. 497b)
- Ski Area Recreational Opportunity Enhancement Act of 2011
- The Cabin User Fee Fairness Act of 2000 (16 U.S.C. 6201-6213)
- Forest Service Outdoor Recreation Accessibility Guide
- Migratory Bird Treaty Act of 1918 as amended (16 USC 703-712)
- Bald and Golden Eagle protection Act of 1940
- California Water Code, Porter-Cologne Act
- Water Quality Management for Forest System Lands in California, Best Management Practices Handbook
- Water Quality Control Plan for the Lahontan Region, Chapter 5
- Lake Tahoe Basin 208 Plan, TRPA
- The Act of March 4, 1915, as amended in 1956 (16 U.S.C. 497)
- The Transfer Act of 1905 (16 U.S.C. 472, 554)
- Forest and Range Renewable Resource Planning Act
- The General Exchange Act of 1922 (16 U.S.C. 485, 486)
- Act of July 3, 1943 (7 U.S.C. 2253) (Land Adjustments)
- The Land and Water Conservation Fund Act as amended (16 U.S.C. 4601)
- The Federal Land Policy and Management Act of 1976 (P.L. 94-579)
- The Santini/Burton Act, Public Law 96-586, Dec23, 1980
- Small Tracts Act, Act of January 12, 1983 (16 U.S.C. 521c-521i)
- The Federal Land Exchange Facilitation Act of 1988 (43 U.S.C. 1716, 751)
- Southern Nevada Public Land Management Act of 1998 (Public Law 105-263)
- The Federal Land Transaction Facilitation Act of 2000 (Public Law 106-248)
- The Energy Policy Act of 2005 ( Public Law 109-58) August 8, 2005
- Mining Law of 1872 (36 CFR 228, Subpart A)
- Mineral Resources on Weeks Land, 1917
- Multiple Use Mining Act, 1955
- Mining Claims Rights Restoration Act, 1955
- Federal Land Policy and Management Act, 1976
- Mineral Leasing Act, 1920
- Mineral Leasing for Acquired Land, 1947
- Geothermal Steam Act, 1970
- Materials Act, 1947 (36 CFR 228, Subpart C)

- National Trails System Act
- Executive Order 13195, Trails for America in the 21st Century, issued January 18, 2001
- Executive Orders 11644 and 11989
- The Civil Rights Act of 1964